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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,362	10/05/2001	Farhan Ahmad	SJ09-2001-0099	4699

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EXAMINER	
DIVECHA, KAMAL B	
ART UNIT	**PAPER NUMBER**
2151	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/972,362	AHMAD ET AL.	
	Examiner	Art Unit	
	KAMAL B. DIVECHA	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-40 are pending in this application.

Claims 3, 10-20 are cancelled in this application.

Claims 38-40 are newly added claims.

Response to Arguments

Applicant's arguments filed January 18, 2007 in a Request for Continued Examination (RCE) with respect to claims 1-40 have been fully considered but are moot in view of the new ground(s) of rejection, as necessitated by the substantial amendments to the claims.

Applicant's disclosure has been reproduced herein so that the rejection can be interpreted in view of this disclosure (specification, pg. 174-177):

Launching Device Specific Applications

As discussed above, a SAN according to the invention can include a variety of components, such as one or more digital data processors hosts, one or more storage device, and a switching fabric, having a variety of components, such as, switches, hubs, gateways, for providing communication between the hosts and the storage devices. These components are typically acquired from different vendors, and have various application software associated therewith. For example, the switching fabric components can have vendor-specific management applications that allow configuring and/or managing these components.

The illustrated embodiment permits the SAN operator/administrator to execute these vendor-specific applications from a single graphical user interface, to wit, that SAN manager GUI 20, in a manner described in more detail below.

With reference to FIGURE 6 and FIGURE 42, the SAN manager service 38 maintains a representation of the SAN that provides information, inter alia, regarding the identity of the SAN components, and the connectivity of these components. In addition, the manager service 38 maintains for selected components, for example, the switching fabric components, information regarding management applications specific to them. **These can be applications, by way of non- limiting example, residing directly on the components, applications invoked or effected through HTTP, telnet or other servers residing on the components or on proxy services residing elsewhere**, and/or via applications running on the SAN manager itself. **This information is stored,** for example, in a file, referred to herein as a "Rules" file, **which identifies each of the selected components and the applications and communication interfaces supported by that component, e.g., telnet, SNMP**. In the illustrated embodiment, **a mark-up language, e.g., XML**, is utilized to format the information contained in the Rules file, though in other formats may be used instead or in addition.

Information regarding the component management applications can be obtained from the operator/administrator (e.g., via prompt and/or menu option when the respective components are first added to the system or subsequently) and/or obtained directly from the components themselves. In the case of the latter, the information can be obtained via standardized queries, such as Management Server queries or FC MANAGEMENT MIB queries. In the case of components that cannot respond to such queries with the necessary information (as where the corresponding management application resides on the SAN manager itself) and/or that have multiple management applications, any information obtained from the component is augmented in the Rules file with information, e.g., obtained from the operator/administrator, identifying the necessary or preferred application.

The Netview server can effect retrieval of the SAN representation from the manager service 38 and the display of selected information discerned from the retrieved representation on the Netview console 52, as described in detail above. In one embodiment, the Netview console 52 displays a plurality of graphical objects, e.g., icons, each of which represents one of the SAN components. Alternatively, a textual list of the SAN components can be displayed. Further, the Netview console 52 provides an operator, e.g., the SAN administrator, with a user interface) element, such as keyboard or mouse, that permits selection of one of the displayed components.

The Netview server allows the operator to launch an application process associated with a selected SAN component, such as, a management application residing on that component, such as, a switch, in a manner described below. In response to the selection of a graphical object representing a SAN component, the Netview server accesses the Rules file to obtain information regarding the application processes associated with that selected component, and effects the display of this information, for example, in the form of a menu, on the Netview console 52. In some embodiment, a plurality of management applications residing on a selected component are displayed while in other embodiments, only the primary management application is displayed. To facilitate the display of information regarding on the SAN components on the Netview console, in some embodiments, **the Netview server stores the information retrieved from the SAN manager service 58 regarding the applications residing on the SAN components in a persistable storage.**

The Netview server 54 responds to the selection of one of the displayed application processes by effecting the launching of that application process via an interface process, such as a web-based browser application, a telnet process, or an SNMP application. More particularly, the Netview server 54 communicates with the SAN manager service 38 to retrieve information, such as, launch method and its respective parameters, therefrom. The SAN manager service responds to a request from the Netview server for the launch information by parsing the Rules file to generate an object, e.g., an XML object that contains the requisite information, and transmits the information to the Netview server. The Netview server utilizes the object returned from the SAN manager service to effect the launching of the selected application process. Once the selected application, e.g., a management application, is launched, the operator can utilize the application, via the interface software provided by the Netview server, to configure and/or manage the SAN component on which the application resides. This advantageously allows the operator, e.g., the SAN administrator, to manage a variety of SAN components, having different management applications, from a single entry point, that is, from the Netview server/console.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-2, 4-9, 21-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al. (hereinafter Weber, U. S. Patent No. 6,480,901) in view of Ramberg et al. (hereinafter Ramberg, U. S. Patent No. 6,857,013 B20).

As per claim 1, Weber discloses a system in communication with a network comprising one or more network components (i.e. storage devices and one or more hosts via a switching fabric component, fig. 1, col. 1 L25-58, col. 6 L45-54), comprising:

a manager in communication with the network components (fig. 1 and col. 2 L3-8, col. 2 L22-44); and

an interface process (such as management interface) in communication with the manager and the network components (a switching fabric component and the hosts) wherein the interface process performs (col. 13 L1-9, fig. 5 item #510, col. 2 L22-44, col. 9 L31-35):

obtaining information on the network components from the manager (col. 13 L9-49, col. 4 L34-51, col. 7 L15-65, col. 9 L59-66);

maintaining in a storage device information identifying application process residing on the network components and communication interfaces (application process indicates the communication interface also, for example: SNMPv2: indicates the application process is SNMPv2 and interface required is SNMP interface) supported by the application process (col. 16 L51 to col. 17 L37, fig. 2 item #208);

displaying information representing the network components (col. 13 L9-49, col. 4 L34-54, col. 7 L15-30, col. 15 L14 to col. 16 L50, fig. 6: shows the graphical view);

receiving selection of one displayed network component (col. 16 L51 to col. 17 L34, fig. 6: double clicking or selecting the devices in management domain window displays the detailed information window, col. 16 L51-67);

accessing the storage to determine at least one application process associated with the selected network components (col. 16 L51 to col. 17 L51: the DMA receives device property information about the selected component from storage area);

displaying information on the at least one determined application processes associated with the selected network component, wherein at least one of the determined application processes reside on the selected network component (col. 13 L1-49, col. 16

L58-67: the DMA displays in the device properties the storage system's management interface version, i.e. the management application program associated with the device);

receiving selection of one the displayed application processes (col. 7 L25-39, col. 13 L1-49 and col. 16 L51 to col. 17 L35);

accessing the applet repository to determine information on the selected application process and the communication interface to use to launch the selected application process on the selected network component (col. 13 L64 to col. 14 L41, col.16 L51 to col. 17 L35: accessing the storage to determine the applet to use to launch the application process); and

launching selected application process on the selected network component using the determined information and the determined communication interface from the storage (col. 13 L1-49 and col. 7 L25-39, col. 16 L51 to col. 17 L35, col. 26 L13 to col. 27 L19).

However, Weber does not disclose a rules file (i.e. Weber does not expressly defined the process wherein the rules file identifies application processes residing on the network components. Note that Weber does disclose identifying and executing the application process specific to the managed device, from the storage, Logically, this implies that there must be a file in the storage. According to applicant specification, this rule file is an xml file, see the disclosure above).

Ramberg, from the same field of endeavor (i.e. managing networked devices of any type, col. 22 L6-40), explicitly discloses the process of maintaining a html or xml documents, wherein these documents includes application programs suitable for use with the device platform (i.e. managed device platform) and the process of selecting and loading the application program from

the document (i.e. xml document) and allowing the technician to manage the device over the network (fig. 1, col. 2 L25-65, col. 8 L40-56, col. 9 L40 to col. 10 L3, col. 14 L50-65, col. 25 L5-67).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Weber in view of Ramberg in order to include a rules file comprising application process residing on the network components (to be more specific, in order to include an xml file defining the application process supported by the network components).

One of ordinary skilled in the art would have been motivated because the rules file, such as xml file, is used for encoding all the links between information and network administrators, on the WWW (Ramberg, col. 9 L40 to col. 10 L3: stated another way, by utilizing an xml file structure, the information on application programs, objects and its method, etc., would have allowed network administrator to access device specific information from a single point of management interface).

As per claim 2, Weber discloses a graphical output device coupled to the interface process for displaying one or more graphical objects representing the application processes on the network components, wherein the interface process is coupled to the graphical output device for effecting the display of the graphical objects on the graphical output device (col. 13 L1-67 and col. 4 L34-51, fig. 6, col. 9 L10-42, col. 16 L51 to col. 17 L35).

As per claim 4, Weber discloses the system wherein the interface process responds to selection of one of the objects representing one application process by effecting execution of the application process represented by that object (col. 13 L1-49 and col. 14 L10-15).

As per claim 5, Weber discloses a store containing information regarding one or more network components and one or more application processes residing on the network component (col. 2 L26-36, col. 8 L27-47, col. 16 L51 to col. 17 L35: applet repository stores management applications programs).

As per claim 6, Weber discloses the system wherein the interface process accesses the store, upon selection of one graphical object representing one of the network component, to identify one application process residing on the selected component represented by the selected object (col. 13 L1 to col. 14 L15 in conjunction with fig. 6).

As per claim 7, Weber discloses the system wherein the application process is any of an executable application, a web-browser application, a telnet session, or an SNMP application (col. 10 L54-65, col. 6 L15-26, fig. 4 item #406, fig. 5 item #510, 512).

As per claim 8, Weber discloses the system wherein the information on the network components includes an identifier for the network component and application processes residing on the network component (col. 13 L10-49, col. 16 L51 to col. 17 L35, fig. 6).

As per claim 9, Weber discloses the system wherein at least one of the graphical objects representing one network component provides a textual description of that network component (fig. 6 and col. 13 L37-67, col. 14 L23-40).

As per claim 38, Weber discloses the system wherein the information in the storage for at least one network component is obtained from an operator administrator and the information in the storage for at least one other network component is obtained via standardized queries of the at least one other network component (col. 7 L15-59, col. 9 L10-67 and col. 15 L14 to col. 16 L19).

As per claim 39, Weber discloses the system comprising displaying information on the at least one determined application process on the network component to enable selection of the application process on the selected network component to launch (col. 13 L1-49 and col. 7 L25-39, col. 16 L51 to col. 17 L35, col. 26 L13 to col. 27 L19).

However, Weber does not disclose the system comprising displaying information on a plurality of application processes residing on the selected component (i.e. if the device is associated with multiple application programs).

But it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Weber in order to display plurality of application processes residing on the selected network component if the network component is associated with more than one application process, because Weber teaches the process of displaying information on application process residing on the selected network component.

One of ordinary skilled in the art would have been motivated because it would have enabled the network administrator to launch one of the application process residing on the network component in order to manage the device (Weber, col. 16 L51 to col. 16 L16).

As per claim 40, Weber discloses the system wherein the network components comprise hosts, storage devices, and at least one switching fabric, wherein the manager communicates with the hosts and storage devices via the at least one switching fabric (fig. 1, col. 1 L25-58, col. 6 L45-54).

As per claims 21-37, they do not teach or further define over the limitations in claims 1-2, 4-9 and 38-40. Therefore claims 21-37 are rejected for the same reasons as set forth in claims 1-2, 4-9 and 38-40.

Examiner's Point of View

The components in a SAN are typically acquired from different vendors, and have various application software, i.e. control software, associated therewith (see applicant specification page 174 lines 10-17 and Weber, col. 1 L40-67).

The claimed invention in the present application solves the problem of executing these vendor-specific applications from a single graphical user interface, i.e. a communication interface such as web browser or SNMP application, which effects the launching of the vendor-specific application residing in the device, similar to the process disclosed by Weber (see applicant specification, page 174 lines 19-21 and Weber, fig. 1, fig. 4 and col. 4 L9-31).

Information regarding the device-specific management application, i.e. application process, as in Weber is retrieved from a storage which when selected, launches and effects the execution of the control software residing in the network component enabling the administrator to manage the device (col. 7 L15 to col. 8 L15).

Logically, the management application provides the information on the control software residing in the device and effects the execution of the control software through the management application, which would then enable administrator to manage the device.

Without the execution of the control software, the management of the vendor-specific devices would be impossible.

Additional References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Prithviraj et al., US 5,987,513: Network Management Using Brower-Based Technology: describes detailed device properties in an html document and hyperlinks.

b. Babu et al., US 6,122,639: Network Device Information collection and change detection.

c. Humpleman et al., US 6,466,971 B1: Method and System for Device to Device command and control in a network: displays information on application processes residing on the device in an xml format or file.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kamal Divecha
Art Unit 2151
March 7, 2007.

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER